

Abstract

Improved process for the oxidation of organic substrates by means of $^1\text{O}_2$, in which 3-90% strength H_2O_2 is added to organic substrates which are soluble in water or in organic solvents miscible with water and which react with $^1\text{O}_2$, in a water-miscible organic solvent, in water or in a mixture of water and water-miscible organic solvent in the presence of a heterogeneous or homogeneous catalyst, whereupon, following the catalytic decomposition of H_2O_2 to give water and $^1\text{O}_2$, the oxidation of the substrates to give the corresponding oxidation products takes place, where, during the reaction, water is selectively removed from the reaction mixture by means of membranes.